WHAT IS CLAIMED IS:

1. An optical scanning apparatus comprising:

a semiconductor laser for emitting a multi-beam for forming a latent image on an image bearing member; and

a plurality of light receiving portions for receiving the multi-beam, the number of light receiving portions being equal to or larger than the number of beams of the multi-beam,

wherein the plurality of light receiving portions are arranged with a predetermined space between them in a sub-scanning direction of the multi-beam without being overlapped with each other, and each of the plurality of light receiving portions has a shape so that edges of the plurality of light receiving portions on a start side in a main scanning direction are in parallel to each other, edges of the plurality of light receiving portions on an end side in the main scanning direction are in parallel to each other, and the edges on the start side and the edges on the end side in the main scanning direction are not in parallel to each other.

2. An optical scanning apparatus according to claim 1, wherein the predetermined space is a desirable pitch between scanning positions of the multi-beam.

3. An optical scanning apparatus according to claim 2, wherein the semiconductor laser is composed of a plurality of semiconductor laser units.

4. An optical scanning apparatus according to claim 3, wherein the plurality of light receiving portions include at least a first light receiving portion for receiving a first beam as a reference and a second light receiving portion for receiving a second beam, and a displacement of position in the sub-scanning direction is detected based on a signal obtained by entering the first beam and the second beam into the plurality of light receiving portions.

5. An optical scanning apparatus according to claim 4, further comprising a beam pitch control section which determines that a space between the scanning positions of the multi-beam is the desirable pitch when a length in which the first beam as the reference scans on the first light receiving portion is equal to a length in which the second beam scans on the second light receiving portion.

6. An optical scanning apparatus according to claim 3, wherein the plurality of light receiving portions include a first light receiving portion for receiving a laser beam emitted from a first

semiconductor laser unit and a second light receiving portion for receiving a laser beam emitted from a second semiconductor laser unit,

wherein said optical scanning apparatus further comprising:

a first current-voltage converting section for converting a current signal obtained from the first light receiving portion to a voltage signal; and

a second current-voltage converting section for converting a current signal obtained from the second light receiving portion to a voltage signal, and

wherein a space between a scanning position of the first semiconductor laser unit and a scanning position of the second semiconductor laser unit is measured based on a comparison result between an output signal of the first current-voltage converting section and an output signal of the second current-voltage converting section.

7. An optical scanning apparatus comprising:

a semiconductor laser for emitting a multi-beam for forming a latent image on an image bearing member; and

a plurality of light receiving portions for receiving the multi-beam, the number of light receiving portions being equal to or larger than the number of beams of the multi-beam,

wherein the plurality of light receiving portions are arranged with a predetermined space between them in a sub-scanning direction of the multi-beam without being overlapped with each other, each of the plurality of light receiving portions has a shape so that edges of the plurality of light receiving portions on a start side in a main scanning direction are in parallel to each other, edges of the plurality of light receiving portions on an end side in the main scanning direction are in parallel to each other, and the edges on the start side and the edges on the end side in the main scanning direction are not in parallel to each other, and the edges on one of the start side and the end side in the main scanning direction is substantially perpendicular to the main scanning direction, and at least one recess is provided in each of the edges on the other of the start side and the end side.

8. An optical scanning apparatus according to claim 7, wherein in the case in which the shape of each of the plurality of light receiving portions has two sides parallel to the main scanning direction, when a length of a maximum side of the two parallel sides is given by "a", a length of a minimum side of the two parallel sides is given by "b", and a length of a remaining portion due to the recess of each of

the plurality of light receiving portions is given by "c", the following relationship is satisfied:

$$c < b < a.$$

9. An optical scanning apparatus according to claim 7, wherein when a plurality of recesses are provided in each of the plurality of light receiving portions, lengths of remaining portions due to the plurality of recesses of each of the plurality of light receiving portions are different from each other.

10. An optical scanning apparatus according to claim 8, wherein a width of the recess in each of the plurality of light receiving portions in the sub-scanning direction is equal to or larger than a spot diameter of the multi-beam in a direction substantially perpendicular to the main scanning direction.

11. An optical scanning apparatus according to claim 7, wherein each of the plurality of light receiving portions is of a heptagonal or more polygonal shape having the recess.

12. An optical scanning apparatus according to claim 7, wherein each of the plurality of light

receiving portions is of a triangular or rectangular shape and the recess is formed by masking a part of each of the plurality of light receiving portions.

13. An optical scanning apparatus according to claim 10, wherein when respective scanning lines of the multi-beam pass through predetermined positions of the plurality of light receiving portions, corresponding consistent signals are outputted.

14. An optical scanning apparatus according to claim 7, wherein the predetermined space corresponds to a resolution of the optical scanning apparatus in the sub-scanning direction.

15. An optical scanning apparatus according to claim 14, wherein when the resolution of the optical scanning apparatus in the sub-scanning direction is changeable, the predetermined space corresponds to the resolution changeable by the optical scanning apparatus.

16. An optical scanning apparatus according to claim 13, wherein when a pulse width of a detection signal from each of the plurality of light receiving portions is equal to or shorter than a predetermined pulse width, a corresponding consistent signal is

outputted.

17. An optical scanning apparatus according to claim 16, wherein it is controlled such that the consistent signals from the plurality of light receiving portions, resulting from the scanning lines of the multi-beam are outputted from respective ones of the plurality of light receiving portions, thereby adjusting a beam space of the multi-beam in the sub-scanning direction.